Taxation of Supernormal Returns

DAVID ELKINS AND CHRISTOPHER H. HANNA*

> *"Scalper? Did you call me a scalper? Listen, gentlemen, I perform a service here, and the service costs money."*
>
> Fast Times at Ridgemont High (1982)[1]

I. Introduction

In the last ten to fifteen years, a number of articles have been written on the differences between a normative income tax system and a normative consumption tax system, with much of the discussion focusing on the taxation of the risk-free rate of return and the risk premium from an investment.[2] As is generally accepted, under certain assumptions an accrual income tax system taxes the risk-free rate of return on capital but does not tax the risk premium, while a cash-flow consumption tax system (or a wage tax system) taxes neither the risk-free rate of return nor the risk premium.[3] As a result, the only difference between the two tax systems is the tax treatment of the risk-free rate of return on capital.[4] Brief forays into supernormal returns have seemed to indicate that these returns are taxed under an accrual income tax or a cash-

* David Elkins is a visiting Professor of Law, Southern Methodist University, Dallas, Texas; Senior Lecturer in Law and Distinguished Teaching Fellow, Netanya College, Israel. Christopher H. Hanna is the Altshuler Distinguished Teaching Professor and Professor of Law, Southern Methodist University, Dallas, Texas. We thank Ellen Aprill, Reuven Avi-Yonah, Greg Crespi, Calvin Johnson, Bill Lyons, Jeff Strnad, and Larry Zelenak for their valuable comments on an early draft of this Article.

[1] FAST TIMES AT RIDGEMONT HIGH (Universal Pictures 1982), *available at* http://www.script-o-rama.com/movie_scripts/f/fast-times-at-ridgemont-high-script.html (last visited Nov. 4, 2008).

[2] *See, e.g.*, Joseph Bankman & Thomas Griffith, *Is the Debate Between an Income Tax and a Consumption Tax a Debate About Risk? Does It Matter?*, 47 TAX L. REV. 377 (1992); Noel B. Cunningham, *The Taxation of Capital Income and the Choice of Tax Base*, 52 TAX L. REV. 17 (1996); Louis Kaplow, *Taxation and Risk-Taking: A General Equilibrium Perspective*, 47 NAT'L TAX J. 789 (1994); Alvin C. Warren, Jr., *How Much Capital Income Taxed Under an Income Tax is Exempt Under a Cash Flow Tax?*, 52 TAX L. REV. 1 (1996); David Weisbach, *The (Non) Taxation of Risk*, 58 TAX L. REV. 1 (2004); Lawrence Zelenak, *The Sometimes-Taxation of the Returns to Risk-Bearing Under a Progressive Income Tax*, 59 SMU L. REV. 879 (2006).

[3] *See, e.g.*, Bankman & Griffith, *supra* note 2, at 377; Warren, *Capital Income*, *supra* note 2, at 6–14. For purposes of this Article, we will refer to a postpaid consumption tax as a cash-flow consumption tax and a prepaid consumption tax as a wage tax.

[4] *See, e.g.*, THE PRESIDENT'S ADVISORY PANEL ON FEDERAL TAX REFORM, SIMPLE, FAIR AND PRO-GROWTH: PROPOSALS TO FIX AMERICA'S TAX SYSTEM 153 (2005), *available at* http://www.taxreformpanel.gov/final-report (stating that "[a] pure income tax and a 'postpaid' consumption tax . . . differ only in their treatment of the return to waiting [risk-free return].").

flow consumption tax, but not under a wage tax.[5]

In this Article, we begin with a brief discussion on the taxation of capital income.[6] We then discuss the taxation of supernormal returns on investments.[7] The literature has treated supernormal returns as one of the three elements of the return on capital (along with the risk-free rate of return and the risk premium).[8] Our thesis is that a supernormal return is not a return on capital but rather a return on skill or labor or, in some cases, simply a windfall. The implications of treating supernormal returns as due to skill or as a windfall can be quite enlightening and startling. For example, if Congress were to adopt a wage tax system, supernormal returns would need to be taxed under such a system.[9] To compare the various tax bases, the following discussion assumes flat tax rates, full loss offsets, and no inflation.

> *"Teldar's shooting up. Did you buy any for yourself? I bet you were on the phone two minutes after you got out of my office."*
>
> Wall Street (1987)[10]

II. Background on Taxation of Capital Income

It is generally well accepted that under an accrual income tax, the risk-free rate of return on capital is taxed but the risk premium is not.[11] In contrast, under a cash-flow consumption tax, neither the risk-free rate of return nor

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[5] "Supernormal returns" are often referred to in the literature as "inframarginal returns." We prefer the term "supernormal" to avoid confusion with producer's or consumer's surplus, which are also described as "inframarginal." The President's Advisory Panel on Federal Tax Reform also used the term "supernormal" rather than "inframarginal." *See* THE PRESIDENT'S ADVISORY PANEL ON FEDERAL TAX REFORM, *supra* note 4. Alvin Warren, perhaps for the same reason, has used the term "above-normal returns." *See* Alvin C. Warren, *The Business Enterprise Income Tax: A First Appraisal*, 118 TAX NOTES (TA) 921, 922 (Feb. 25, 2008).

[6] *See infra* Part II.

[7] *See infra* Part III.

[8] A fourth element, which is usually assumed away in discussion of the elements of the return on capital, is the inflation component. *See* Daniel Halperin & Eugene Steuerle, *Indexing the Tax System for Inflation*, *in* UNEASY COMPROMISE: PROBLEMS OF A HYBRID INCOME-CONSUMPTION TAX 347 (Henry J. Aaron et al. eds., 1988) (suggesting adjusting capital income for inflation); David Elkins, *Taxing Income Under Inflationary Conditions: The Israeli Experience*, 60 SMU L. REV. 363 (2007) (discussing a comprehensive approach to neutralizing the effects of inflation in computing taxable income).

[9] In recent years, some tax scholars have suggested that the U.S. tax system is moving closer to a wage tax system. *See, e.g.*, William G. Gale & Peter R. Orszag, *Bush Administration Tax Policy: Summary and Outlook*, 105 TAX NOTES (TA) 1279, 1282 (Nov. 29, 2004) (stating that "[i]nstead, the tax cuts enacted to date and the proposed additional changes would move the system toward a wage tax").

[10] WALL STREET (20th Century Fox 1987), *available at* http://www.script-o-rama.com/movie_scripts/wall-street-transcript.html (last visited Nov. 4, 2008).

[11] *See, e.g.*, Bankman & Griffith, *supra* note 2, at 1; Cunningham, *supra* note 2, at 29; Warren, *Capital Income*, *supra* note 2, at 6.

the risk premium is taxed.[12] As a result, the only difference between an accrual income tax and a cash-flow consumption tax with respect to the return on capital is that the risk-free return is taxed under the former system but not under the latter system.[13]

Academics have generally utilized two different views in analyzing whether the return on capital is taxed under an accrual income tax or a cash-flow consumption tax.[14] The first view is generally referred to as the partnership view or the total exemption view and is utilized in analyzing the return on capital in a cash-flow consumption tax.[15] Dr. Cary Brown advanced this view in the tax law literature in 1948; it generally treats the investor as being in a partnership with the government.[16] The second view is generally referred to as the gross-up view or the tax savings view.[17] Drs. Evsey Domar and Richard Musgrave advanced this view in the tax law literature in 1944 in the context of an income tax system.[18] Dr. Musgrave later utilized this view in the context of a cash-flow consumption tax.[19] Under this second view, the investment is grossed up to counter the effects of taxation.

A. *Partnership View Under a Cash-Flow Consumption Tax*

Under the partnership view, the fact that a cash-flow consumption tax does not tax the risk-free return and the risk premium on investments is demonstrated by focusing on the taxpayer's investment and treating the taxpayer as being in a partnership with the government.[20] The taxpayer will contribute capital to the partnership, and the government will also contribute capital to

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[12] *See* Bankman & Griffith, *supra* note 2, at 1; Cunningham, *supra* note 2, at 25–26; Warren, *Capital Income*, *supra* note 2, at 6–7.

[13] *See* Bankman & Griffith, *supra* note 2, at 1; Cunningham, *supra* note 2, at 28–29; Warren, *Capital Income*, *supra* note 2, at 6–7.

[14] *See, e.g.*, Cunningham, *supra* note 2, at 26; STANLEY S. SURREY, PATHWAYS TO TAX REFORM app. at 120–25 (1973); Warren, *Capital Income*, *supra* note 2, at 1.

[15] *See* Cunningham, *supra* note 2, at 26.

[16] E. Cary Brown, *Business Income Taxation and Investment Incentives*, *in* INCOME, EMPLOYMENT AND PUBLIC POLICY: ESSAYS IN HONOR OF ALVIN H. HANSEN 300, 309–10 (1948), *reprinted in* THE AMERICAN ECONOMICS ASSOCIATION, READINGS IN THE ECONOMICS OF TAXATION 525 (Richard A. Musgrave & Carl S. Shoup eds., 1959).

[17] *See* Cunningham, *supra* note 2, at 26.

[18] *See* Evsey D. Domar & Richard A. Musgrave, *Proportional Income Taxation and Risk-Taking*, 58 Q. J. ECON. 388 (1944), *reprinted in* THE AMERICAN ECONOMIC ASSOCIATION, READINGS IN THE ECONOMICS OF TAXATION 493 (Richard A. Musgrave & Carl S. Shoup eds., 1959).

[19] *See* Richard A. Musgrave, *Clarifying Tax Reform*, 70 TAX NOTES (TA) 731, 736 (Feb. 5, 1996).

[20] *See* Brown, *supra* note 16, at 309–10. Many other commentators have picked up on the partnership analogy first put forward by Dr. Cary Brown. *See, e.g.*, WILLIAM D. ANDREWS, BASIC FEDERAL INCOME TAXATION 237–39 (5th ed. 1999); SURREY, *supra* note 14, at 124; J. Clifton Fleming, Jr., *Replacing the Federal Income Tax with a Postpaid Consumption Tax: Preliminary Thoughts Regarding a Government Matching Program for Wealthy Investors and a New Tax Policy Lens*, 59 SMU L. REV. 617, 620 (2006); Christopher H. Hanna, *Demystifying Tax Deferral*, 52 SMU L. REV. 383, 384–85 (1999).

the partnership. Any return on the government's capital is not a tax—rather, it is merely a return on the government's investment in the partnership.[21] Any taking by the government that is not a return on its capital is treated as a tax under the partnership view.[22]

If a taxpayer invests $1,000 at a 40% tax rate and an 8% rate of return (composed of a 5% risk-free rate of return and a 3% risk premium) in which the $1,000 investment is immediately deductible, then $400 of the $1,000 investment can be thought of as belonging to the government and only $600 as belonging to the taxpayer. Therefore, based on capital contributions, the taxpayer is a 60% partner in the partnership (contributing $600) and the government is a 40% partner in the partnership (contributing $400).[23] When the money invested earns a return of $80 to the partnership, $48 of that is, in effect, a return on the taxpayer's $600 investment and $32 is the return on the government's $400 investment. By taking that $32, the government is not taxing the taxpayer's share of the profits of the partnership; it is merely claiming the return on its own share of its investment in the partnership.

	Capital Contribution to the Partnership	Return on the Capital Contribution (8% Return)
Taxpayer/Investor	$600	$48
Government	$400	$32
Totals	$1,000	$80

To subject the return on the investment to tax, the *return* on the *taxpayer's* investment in the partnership must be subject to tax. The taxpayer's investment in the partnership is $600. The taxpayer's share of the return is $48 ($80 times 60%). Assume the government takes 40% of the taxpayer's return of $48. As a result, the taxpayer's net return is reduced to $28.80. It appears that the entire return of $80 is being subject to double taxation.[24] But that is

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[21] Hanna, *supra* note 20, at 398–400.

[22] *See* Hanna, *supra* note 20, at 399–400.

[23] If the investment is grossed-up to $1,667 ($1,000 divided by $(1 - t)$), then the taxpayer can be viewed as investing $1,000 in the partnership and the government investing $667 in the partnership.

[24] In June 1990, the Treasury issued proposed regulations on the taxation of section 461(f) settlement funds. In the regulations, the Treasury adopted what appeared to be a double taxation approach with respect to the earnings of the fund. In fact, a number of commentators wrote to the Treasury arguing that it was double taxing the earnings of the fund. *See* Marianne Evans, *IRS' Kempson Explains Contested Liabilities Under Economic Performance Test*, 48 TAX NOTES (TA) 1463 (Sept. 17, 1990). In actuality, the Treasury was merely implementing a method allowing an immediate deduction for an investment and still taxing the taxpayer's share of the return on the investment. *See* IA-258-84, 1990-2 C.B. 805, 55 Fed. Reg. 23,235 (June 7, 1990).

For a discussion of what appears to be a double taxation approach in taxing the taxpayer's share of the return, see Christopher H. Hanna, *The Virtual Reality of Eliminating Tax Deferral*, 12 AMER. J. TAX POL'Y 449, 498–507 (1995).

not accurate. Of the entire return of $80, 40% or $32 of that is actually the government's share because the government, in essence, contributed 40% of the investment. So the government's share of the return of $32 is really not a tax. The taxpayer's share of the entire return of $80 is 60% or $48 because the taxpayer, in essence, contributed 60% of the investment. Taxing the taxpayer's $48 share of the return is the only real tax being imposed on the entire return of $80. Therefore, if the taxpayer's share of the return is not taxed, then in essence the entire return is not subject to tax—the government's taking of $32 is merely collecting its portion of the return from its investment.

The taxpayer's tax savings of $400 from deducting its $1,000 investment can also be invested and deducted. As a result, the taxpayer will have an additional $400 to invest. The taxpayer's $400 investment can also be viewed as being a partnership with the government. Assume the investment has a rate of return of 8% and a 40% tax rate is applicable.

	Capital Contribution to the Partnership	Return on the Capital Contribution (8% Return)
Taxpayer/Investor	$240	$19.20
Government	$160	$12.80
Totals	$400	$32

A third partnership is created because the taxpayer may deduct its $400 investment, creating a tax savings of $160. These partnerships will continue as long as the taxpayer deducts the amount of its investment and invests the tax savings.

B. *Gross-Up View Under a Cash-Flow Consumption Tax*

Under the second view, the gross-up view, the fact that a cash-flow consumption tax does not tax the risk-free return and the risk premium on investments is demonstrated by showing that the taxpayer would "gross up" her investment, so that her net investment, after taking the tax savings into consideration, would equal the amount of money which she originally wanted to invest.[25] For example, assume the taxpayer wishes to invest $1,000 in a cash-flow consumption tax world. Instead of simply investing $1,000, she could invest $1,667 ($1,000 investment divided by (one minus the tax rate of 40%)). Because the entire $1,667 investment is currently deductible under a cash-flow consumption tax, the taxpayer would have an immediate tax savings of $667, her net investment remaining at $1,000.[26] The return on the total investment of $1,667, again at an 8% return, would equal $133.33, and her net return after taxes would be $80 ($133.33 total return less $53.33

[25] *See, e.g.*, RICHARD A. MUSGRAVE, THE THEORY OF PUBLIC FINANCE 343–44 (1959); SURREY, *supra* note 14, at 123–24.

[26] Her net investment remains at $1,000 because when she closes out her investment and receives $1,667, she will pay 40% or $667 in taxes to the government and will retain $1,000.

in taxes). In other words, by grossing up her investment, the taxpayer can, in effect, duplicate what would occur under a wage tax system (no tax on income from capital), in which she simply invests $1,000 and earns a return of $80.

The key to the gross-up view is that to the extent the tax savings from deducting the original investment can be invested at the same rate of return as the original investment, the entire return is exempt from tax.[27] As a result, the partnership view and the gross-up view achieve the same interpretation of results as to the risk-free rate of return and risk premium under a cash flow consumption tax—it is exempt from tax.[28]

C. *Partnership View Under an Accrual Income Tax*

The partnership view can be applied to demonstrate that the risk-free rate of return is taxed and the risk premium is not taxed in an accrual income tax system. If a taxpayer invests $600 (after-taxes) at an 8% rate of return (composed of a 5% risk-free rate of return and a 3% risk premium), then the taxpayer has contributed $600 to the partnership, and the government has contributed no capital. When the money invested earns a return of $48 to the partnership, $30 of that represents the risk-free rate of return and $18 represents the risk premium.

With regard to the risk-free return of $30, the government is not contributing anything towards earning that part of the return. As the government has contributed nothing to the procurement of the risk-free return (which is simply a return to waiting), its appropriation of part of that return can only be credited to its role as a tax collector. As to the risk premium of $18, the government is taking upon itself a share of the risk. As a result, the risk premium is not taxed because the government's appropriation of that part of that return is not credited to its role as a tax collector but rather to its role as

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[27] MUSGRAVE, *supra* note 25, at 343–44.

[28] If the taxpayer deducts the amount of its investment and invests the tax savings and continues to do so with each tax savings, then aggregating all of the partnerships that are created as a result of each investment under the partnership view will achieve an identical result to simply grossing up the original investment (*i.e.*, the gross-up view) with respect to the risk-free rate of return and the risk premium.

a risk taker.[29]

D. *Gross-Up View Under an Accrual Income Tax*

The gross-up view can be applied to demonstrate that the risk premium is not taxed in an accrual income tax system.[30] Assume an investor has $2,000 to invest. In a world with no taxes, the investor would invest $1,000 in an investment generating a 5% risk-free rate of return. The other $1,000 would be invested in an investment with an expected return of 8% (composed of a 5% risk-free rate of return and a 3% risk premium). At the end of one year, the investor would earn $130 ($50 from the risk-free investment and $80 from the risky investment) leaving the investor with $2,130 ($1,000 plus $1,000 plus $130).

If a 40% tax is introduced, the investor can gross-up his investment in the risky investment to $1,667 ($1,000 divided by (one minus the tax rate)). Therefore, the investor would invest only $333 in the risk-free investment.[31] At the end of one year, the investor would earn $150 from the two investments ($133.33 from the risky investment and $16.67 from the risk-free investment).[32] The investor would pay $60 in taxes ($150 times 40% tax rate) leaving the investor with $2,090 ($2,000 plus $150 less $60). The difference between the $2,090 in a 40% tax world and the $2,130 in a no-tax world is $40, which is equal to the 5% risk-free return on the entire investment of $2,000 multiplied by the tax rate of 40%.[33] In other words, by grossing up the investment in the risky asset, the investor can offset the effects of taxation on the risk premium so that the only tax paid is that on the risk-free rate of return on the entire investment.[34]

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[29]The risk involved in a risky investment is not only the risk of losing part of the initial capital; it also includes the risk of not receiving the risk-free return. Under an accrual income tax, however, the government does not put up any of the initial investment. The entire investment is financed by the taxpayer's after-tax income. Nevertheless, despite not participating in the investment itself, the government is participating in the risk if the taxpayer selects a risky investment. Therefore, while the government is not economically entitled to any portion of the return which the market offers for the delayed consumption, it is entitled to the return which the market offers for risk taking.

Income tax on the return to risky investment must therefore be divided into a tax on the risk-free return and a tax on the risk premium. As far as the risk-free return is concerned, the government has not contributed any amount towards earning it, and is not taking any risk, so therefore its taking part of the risk-free return is an actual tax. As far as the risk premium is concerned, however, the government accepting upon itself, even by coercion, some of the risk entitles it to part of the reward.

[30]*See* Domar & Musgrave, *supra* note 18, at 409–22.

[31]*See id.*

[32]*See id.*

[33]*See* Warren, *Capital Income*, *supra* note 2, at 8–9.

[34]*See id.*

"Congratulations, Mr. Babbitt. Counting into a six-deck shoe is a feat."

"I don't understand what you're talking about."

"We make videotapes, Mr. Babbitt, and we analyze the tapes, and we even share some of the information with the other casinos. These tapes suggest that you should take your winnings and leave the state."

Rain Man (1988)[35]

III. Supernormal Returns

A. *General Principles and Basic Proposition*

In the literature, a supernormal return has been defined as an element of the return on investments displaying two distinguishing characteristics.[36] First, the anticipated return must be higher than the anticipated return on ordinary investments carrying a comparable level of risk.[37] The difference between the two is the supernormal return. Just as the return on an ordinary risky investment can be bifurcated into the risk-free return and the risk premium, so the anticipated return on a supernormal investment can be trifurcated into the risk-free return, the risk premium, and the supernormal return.[38]

Second, the amount that can be invested must be limited.[39] The literature, however, does not explain what it means for the investment to be limited. In particular, it is unclear whether the limitation is an objective description of the investment or whether it takes into account the circumstances of a partic-

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[35] RAIN MAN (United Artists 1988), *available at* http://www.script-o-rama.com/movie_scripts/r/rain-man-script-transcript-hoffman.html (last visited Nov. 4, 2008).

[36] *See, e.g.*, William M. Gentry & R. Glenn Hubbard, *Distributional Implications of Introducing a Broad-Based Consumption Tax*, TAX POL'Y & ECONOMY 1, 6 (1997) ("associated with rent to ideas, managerial skill, or market power"); Cunningham, *supra* note 2, at 24:

> On occasion, however, an investor may be lucky enough to have the opportunity to invest in an enterprise that, taking risk into account, offers an expected rate of return higher than the market, a so-called inframarginal return. By their very nature, these extraordinary returns must be limited (otherwise the return would become marginal) and are generally 'associated with rent to ideas, managerial skill, or market power.'

See also Warren, *Capital Income, supra* note 2, at 5:

> Inframarginal returns may be greater than the return available on marginal investments, because the former may include unique gains, such as windfalls or monopoly profits, which cannot be replicated with additional investment. The higher rate of return on such inframarginal investments may not be available on investment of the tax savings from expensing, precisely because such opportunities are limited.

See also Weisbach, *supra* note 2, at 19 ("To be an inframarginal investment, the return on the investment must be above the market rate of return and the individual must not be able to invest more in the investment at the same rate. It must be a one-time opportunity.").

[37] Weisbach, *supra* note 2, at 19.

[38] *See* Cunningham, *supra* note 2, at 23.

[39] *See* Weisbach, *supra* note 2, at 19.

ular investor.[40] It is important to note that the literature does not adequately explain the source of supernormal returns. Some commentators describe supernormal returns as "returns . . . associated with rents to ideas, managerial skill, or market power."[41] Other commentators describe such returns as due to "unique opportunities, such as patents or industrial know-how. Economists usually call these opportunities rents."[42] The literature notes that it is possible that some gains that appear to be supernormal returns are actually returns to labor or entrepreneurship and not an above-normal return to capital.[43] In other cases, what appears to be a supernormal return may simply be a windfall.[44]

In contrast to how supernormal returns are defined in the literature, we believe that supernormal returns should not be treated as an element of the return on capital.[45] Rather, we believe that supernormal returns should be treated as returns on labor or as windfalls.[46] A supernormal return ordinarily results from the capability of the taxpayer to earn a higher rate of return than that offered by the market for a given level of risk.[47] Supernormal returns derive from the ability of the taxpayer to locate and manage the most profitable investments. While the risk-free rate of return is a return to waiting and the risk premium is a return on risk-taking, the supernormal return is a return on the skills of the investor with respect to the capital investment.[48] It is true that to generate a supernormal return, an investor needs capital to exploit the investor's skills in locating and investing in the most profitable investments, but the capital needed to exploit the investor's skills does not change the nature of the supernormal return—that is, it is a return to skill or labor.

In some cases, supernormal returns may be due to blind luck: being in the right place at the right time. For example, someone who needs a loan but does not have time to negotiate the best possible terms may be willing to borrow at a higher rate of interest than is justified by his creditworthiness. A lender may be lucky enough to be in the vicinity and to satisfy the request. The supernormal return in this case is best classified as a windfall—the equivalent of finding money lying in the street. Of course, some people seem to have

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[40] Assume, for example, that taxpayer A has $100,000 to invest, while taxpayer B has $10 million to invest. An investment with a $500,000 cap and which offers an above-market return is limited from the perspective of taxpayer B, but not from the perspective of taxpayer A.

[41] *See* Gentry & Hubbard, *supra* note 36, at 6.

[42] *See* Warren, *Business Enterprise Income Tax*, *supra* note 5, at 921.

[43] *See, e.g.*, Cunningham, *supra* note 2, at 23 n.34; Warren, *Capital Income*, *supra* note 2, at 5–6; Weisbach, *supra* note 2, at 21.

[44] *See, e.g.*, Warren, *Capital Income*, *supra* note 2, at 6.

[45] *See* Warren, *Capital Income*, *supra* note 2, at 5.

[46] A number of commentators have suggested that amounts classified as returns to capital may actually be returns to skill or labor. *See, e.g.*, Cunningham, *supra* note 2, at 23; Warren, *Capital Income*, *supra* note 2, at 5–6; Weisbach, *supra* note 2, at 21.

[47] *See* Weisbach, *supra* note 2, at 19.

[48] *See* Cunningham, *supra* note 2, at 23; Warren, *Capital Income*, *supra* note 2, at 5–6; Weisbach, *supra* note 2, at 21.

the knack of being in the right place at the right time more often than others. To the extent that this is the case, the supernormal return should again be credited to the skill—even if exploited unconsciously—of the taxpayer. As a result, the supernormal return should not be considered an element of the return on a capital but rather a return on skill or labor or, in some cases, simply a windfall.[49]

Example 1.[50] Gordon Gekko has identified Teldar Paper as an undervalued company. He acquires the stock of Teldar Paper and generates a significant profit for himself when he sells the stock. The supernormal return on his investment is due to his skills in identifying Teldar Paper as a good investment.

Bud Fox, while sitting in Gekko's office, inadvertently overhears that Gekko is planning to acquire Teldar Paper. Fox immediately invests in Teldar Paper and, as a result of Gekko's skills in identifying Teldar Paper as an undervalued company, Fox makes a significant profit on his investment in Teldar Paper. The supernormal return on Fox's investment in Teldar Paper is a windfall to him.

If a supernormal return is a return to skill or labor or is simply a windfall, a couple of immediate consequences result. First, the issue of whether the investment is limited—and what it means for an investment to be limited—is no longer relevant. Second, if supernormal returns are returns to skill (or labor) or simply a windfall, then they should be taxed under a wage tax system.

The distinction between the return on the exploitation of the taxpayer's skill and a windfall need not unduly concern us. From both an income and a consumption perspective, the two are equivalent. From an income perspective, each is an accession to wealth, with the only difference being that income derived from skill exploitation often has a psychic cost, which is, in any case, not taken into consideration by the income tax base.[51] From a consumption perspective, consumption financed out of wages and consumption financed out of windfalls are both, by definition, consumption.

A question which may be raised at this point is, when the taxpayer can earn a higher rate of return than the market is offering, why she would not simply

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[49]The idea that a supernormal return should be treated as a return to skill or labor has been suggested by others. *See, e.g.*, Cunningham, *supra* note 2, at n.34 ("Much of what commonly is thought of as a return to capital is really a return to labor or an investor's luck or ingenuity."); Warren, *supra* note 2, at 5 ("It is . . . worth noting that some gains that at first might appear to be inframarginal returns to capital are actually returns to labor or, more particularly, to entrepreneurship."); Weisbach, *supra* note 2, at 21 ("One possibility is that many enormous fortunes are returns to skill or labor rather than capital but the tax system mislabels them as returns to capital.").

[50]The following example is taken, in large part, from the movie, Wall Street. WALL STREET (20th Century Fox 1987).

[51]In fact, it can be argued that the wages earned by an individual, to the extent they are not a return on capital investing in developing and enhancing one's skills, are a realization of one's innate endowment and should properly be classified as a windfall.

resort to borrowing ever increasing amounts of money at the market rate of interest and investing the money at supernormal rates of return? Several answers are possible. First, the rate at which the taxpayer can borrow may be, and probably will be, higher than the market rate of return. Assuming, for example, that the risk-free rate of return is 5%, it might be that the taxpayer cannot borrow at less than 8%. If she identifies investments offering a return of 7% due to the market's view of their level of risk, but which she understands to be risk-free, her ability to identify these high-yield risk-free investments is only relevant for investments financed by equity.[52] Second, a supernormal return is usually not the result of risk-free investments but rather the ability to achieve a high rate of return on investments with an equivalent positive risk factor—borrowing increases that risk.[53] At a certain point, the taxpayer will no longer be willing to take the required risk.

The same principles apply with regard to the risk premium. Assuming a positive risk premium, an investor should be willing to borrow at risk-free rates of return and invest in instruments that offer a risk premium. Here, too, the investor will probably not be able to borrow at risk-free rates of return, especially when the loan proceeds are destined for risky investments. Also, the investor may not be willing to take upon herself the additional risk inherent in debt financing.

B. *Supernormal Returns Under a Cash-Flow Consumption Tax*

It is generally accepted that the risk-free rate of return and the risk premium are not taxed under a cash-flow consumption tax.[54] With regard to the supernormal return, however, the government is not contributing anything towards the investment.[55] The supernormal return results solely from the skills of the taxpayer (or is simply a windfall). As the government has contributed nothing to the procurement of the supernormal return, its appropriation of part of that return can only be credited to its role as a tax collector. Therefore, from an income perspective, the supernormal return, in contrast to the risk-free return and the risk premium, is taxed under a cash-flow consumption tax.[56] From a consumption perspective, all consumption, however it is financed, is taxed under a cash-flow consumption tax.[57]

In the literature, some commentators have maintained that the supernormal return *is taxed* under a cash-flow consumption tax by utilizing a gross-up view.[58] In other words, because the investment is supernormal and because

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[52] In some cases the taxpayer may be able to overcome the problem of financing by investing in derivatives. The appropriate derivatives, however, may not be available to the taxpayer.

[53] *See supra* Part III.A.

[54] *See supra* Parts II.A. and B.

[55] *See supra* Part II.A.

[56] *See supra* Part III.A.

[57] *See* William D. Andrews, *A Consumption-Type or Cash-Flow Personal Income Tax*, 87 HARV. L. REV. 1113, 1153–1155 (1974).

[58] *See supra* Part II.B.

the literature considers supernormal investments to be, by their nature, limited, it is contended that the taxpayer cannot gross-up through additional supernormal investments.[59] As a result, the supernormal return is considered taxed under the gross-up view.[60] Other commentators have suggested that the supernormal return is *not* taxed under the partnership view because the government is a partner in all investments under a cash-flow consumption tax.[61] Therefore, the government taking part of the return on the investment is not a tax but rather a return on the government's investment in the partnership.[62] If our contention that the supernormal return is a return on skill or a windfall and not an element of the return on capital is correct, then arguably neither the gross-up view nor the partnership view is fully applicable in determining whether the supernormal return is taxed under a cash-flow consumption tax.

C. *Supernormal Returns Under an Accrual Income Tax*

Under an accrual income tax, as is generally accepted, the risk-free return is taxed, while the risk premium is not taxed.[63] Our contention is that the supernormal return is a return on skill or a windfall and not an element of the return on capital. As a result, the government, having contributed nothing towards the supernormal return, can only be functioning as a tax collector. Thus, while the risk premium is not taxed (because the government is taking upon itself a share of the risk), both the risk-free return and the supernormal return are taxed under an accrual income tax.

D. *Supernormal Returns Under a Wage Tax*

As many—if not most—supernormal returns are derived from the taxpayer's skills, it would appear that they must be included in the tax base of a wage tax.[64] Any supernormal return not derived from skill should be treated as a windfall, and therefore still included in the tax base of wage tax. Ostensibly, the taxpayer would therefore pay tax both on her wages and on any supernormal returns she derives. It might be noted that the practical obstacles to isolating the supernormal return from the risk-free return and the risk premium would probably doom a wage tax from the outset.[65] Many of the same problems arise in other situations in which income derives from a combination of capital and labor, with business activity being perhaps the most obvious

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[59] *See id.*

[60] *See id.*

[61] *See supra* Part II.A.

[62] *See id.*

[63] *See supra* Parts II.C. and D.

[64] *See supra* Part III.A.

[65] *See, e.g.*, DAVID F. BRADFORD AND THE U.S. TREASURY TAX POLICY STAFF, BLUEPRINTS FOR BASIC TAX REFORM 110–11 (2d ed. 1984) (restricting use of prepaid approach (*i.e.*, wage tax) to financial assets); Cunningham, *supra* note 2, at 24 n.35 (suggesting restricting use of prepaid approach (*i.e.*, wage tax) to those investments for which the yield is clearly capital income).

example.[66] The following analysis will, however, assume that it is possible to isolate the supernormal return and to tax it under a wage tax regime.

Including supernormal returns in the tax base of a wage tax produces anomalous results, as Examples 2 and 3 demonstrate.

Example 2 (Wage Tax). Assume a financially savvy taxpayer earns wages of $1,000, her tax rate is 40%, and, while the normal market rate of return is 8%, she can earn 12% on an investment she has identified. After paying taxes on her wages, she will be left with $600 to invest. Her investment will produce a return of $72 ($600 times 12%), of which $48 is normal ($600 times 8%) and $24 is supernormal ($600 times 4%), based on her ability to choose investments. If the supernormal return, as derived from the exploitation of her special skills, is included in the tax base of a wage tax, the after-tax funds available for consumption will equal $662.40 [$600 investment plus $48 (normal return) plus $24 (supernormal return) less $9.60 (40% tax on the $24 supernormal return)].

The anomaly of the result in the above example will be apparent when we compare the result of the wage tax (Example 2) with that of the cash-flow consumption tax (Example 3). Under both the wage tax (if supernormal returns are included in the tax base) and the cash-flow consumption tax, the risk-free return and the risk premium are not taxed, while the supernormal return is taxed.[67] We would therefore expect the results of the two tax systems to be identical.

Example 3 (Cash-Flow Consumption Tax). Under a cash-flow consumption tax, the taxpayer described in Example 2 would invest the full $1,000 and would derive a return of $120 ($1,000 times 12%). Should she then wish to consume all her savings, she would pay tax of $448 ($1,120 times 40%), leaving her with $672 ($1,120 less $448). Her post-tax amount under a cash-flow consumption tax would be $9.60 ($672 less $662.40) *greater* than her post-tax amount under a wage tax.

If a wage tax (assuming supernormal returns are included in the tax base) does indeed tax the supernormal return, but not the risk-free return and the risk premium—an apparently obvious proposition, considering that the tax base is wages and supernormal returns—it would seem that the cash-flow consumption tax does not, in fact, tax the supernormal return. After all, in the above two examples, the difference between the post-tax amounts under the two tax bases is $9.60, which is precisely the tax paid on the supernormal return under the wage tax. In other words, if the supernormal return were not

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[66] As an example, the tax base for the self-employment tax under Code section 1402 is labor income. It is difficult, however, to distinguish income due to labor from income due to capital and, as a result, application of the self-employment tax to income earned by partnerships, S corporations, and limited liability companies has been an extremely difficult project for Congress and the Treasury Department. *See* STAFF OF THE JOINT COMMITTEE ON TAXATION, OPTIONS TO IMPROVE TAX COMPLIANCE AND REFORM TAX EXPENDITURES 101 (2005), *available at* http://www.house.gov/jct/5-2-/05.pdf.

[67] *See supra* Parts II.A. and B.

included in the tax base of a wage tax, then the results of Examples 2 and 3 would be identical—in both cases, the taxpayer could consume $672.

The difference between the post-tax amounts under the two tax bases can be demonstrated algebraically. Under the wage tax (if the supernormal return is included in the base), the taxpayer's post-tax amount is: $W(1-t)[1+ N + S (1-t)]$, where W is wages, t is the tax rate, N is the normal rate of return, and S is the supernormal component of the supernormal return. Under the cash-flow consumption tax, the taxpayer's post-tax amount is: $W(1+ N + S)(1-t)$. The difference between the two formulas is the $(1-t)$ that is applicable to the supernormal component in the wage tax and which is absent in the formula for the cash-flow consumption tax.

In comparing the results of Example 2 (wage tax that includes the supernormal return in the base) and Example 3 (cash-flow consumption tax), one of three conclusions, none of which is easy to accept, would appear to follow: a cash-flow consumption tax does not actually tax all wages, supernormal returns are not wages (or a windfall), or a cash-flow consumption tax is not in fact identical to a wage tax. The first conclusion would require an explanation of which types of wages are not taxed under a cash-flow consumption tax and why. The second conclusion requires an explanation of why supernormal returns, despite their being traceable to the taxpayer's own efforts are, nevertheless, not really wages (or, if they are based on pure luck, why they are not a windfall).[68] The third conclusion would require a explanation of why the equivalence of a cash-flow consumption tax and a wage tax, an underlying premise of much of the discussion regarding both the risk-free return and the risk premium, breaks down with respect to supernormal returns.

Before tackling this trilemma, let us slightly change the facts in our two examples. Our unstated assumption was that the taxpayer has an unlimited capability of choosing investments with supernormal returns. Assume, however, that she is only able to identify $500 of supernormal investments. Beyond $500, she cannot obtain better than the market rate of return. The taxpayer's wages ($1,000), the tax rate (40%), the market rate of return (8%), and the supernormal rate of return (12%) are the same as in the previous examples.

Example 4 (Wage Tax with Limited Supernormal Investment Opportunities). Under a wage tax, the taxpayer will receive net wages of $600 ($1,000 less $400 in taxes), of which she will invest $500 in the supernormal investment and $100 in a normal investment. The supernormal investment will produce a return of $60, $40 of which represents the normal market rate of return and $20 represents the supernormal return. She will pay tax of $8 on the supernormal return. The normal investment of $100 will produce a return of $8. After taxes, she will be left with $660 ($600 investments plus $68 return less

[68] If the supernormal return were removed from the tax base of the wage tax, the post-tax amount would become: $W(1-t)[1+ N + S]$. This is the exact same algebraic formula for the cash-flow consumption tax.

$8 in taxes).

Example 5 (Cash-Flow Consumption Tax with Limited Supernormal Investment Opportunities). Under a cash-flow consumption tax, she will have $1,000 to invest, $500 of which will go to the supernormal investment and $500 of which will go to a normal investment. The supernormal investment will produce a return of $60 and the normal investment will produce a return of $40, leaving her with $1,100 ($1,000 investments plus $60 return plus $40 return). A 40% cash-flow consumption tax will allow her to consume $660, exactly the same amount as under a wage tax in this example.

The equivalence between the post-tax amounts in Examples 4 and 5 under the two tax bases can be demonstrated algebraically: Under the wage tax (including supernormal returns in the tax base), the taxpayer's post-tax amount is: $L[1+ N + S (1-t)] + [W(1-t) - L](1 + N)$, where L is the amount of the limited investment opportunity and $L < W(1-t)$. Under the cash-flow consumption tax, the taxpayer's post-tax amount is: $[L(1 + N + S) + (W-L)(1 + N)](1-t)$. The two formulas are equivalent.

We appear to be confronting a paradox. In Examples 2 and 3, when the supernormal return was included in the tax base of a wage tax, the taxpayer's post-tax amount was greater under the cash-flow consumption tax than under a wage tax. In fact, it was greater by an amount exactly equal to the tax on the supernormal return. In Examples 4 and 5, the supernormal return was again included in the tax base of a wage tax. Yet, in these two examples, the taxpayer's post-tax amounts were exactly equal under the cash-flow consumption tax and the wage tax. Is the problem the inclusion of supernormal returns in the tax base of the wage tax?

Focusing on the first set of examples (Examples 2 and 3), the answer would appear to be that *removing* the supernormal return from the wage tax base would equalize the taxpayer's tax burden under the wage tax and cash-flow consumption tax bases. Under either tax regime, she would have $672 available for consumption. However, consider what would happen in the second set of examples (Examples 4 and 5) if the supernormal return were removed from the wage tax base. The taxpayer would earn $68 on her investments, none of which is subject to tax under a wage tax. She would end up with $668 available for consumption under a wage tax. This is $8 *more* than under a cash-flow consumption tax. Therefore, *removing* the supernormal return from the wage tax base in the second set of examples creates a disparity between the taxpayer's tax burden under the wage tax and cash-flow consumption tax bases.

The solution to the dilemma appears to be as follows. While a supernormal return is due to skill (or is a windfall), capital is required to exploit the skill to generate the supernormal return. Assuming that borrowing is not an option, a lack of funds can prevent a person from exploiting her skill to derive a higher rate of return. A wage tax, by taxing wages as they accrue, deprives the taxpayer of a portion of the funds she would otherwise have been able to divert towards supernormal investments. This effect of a wage tax is only

noticeable when the taxpayer has a sufficiently large number of supernormal investments available. If, however, the number of opportunities to invest at supernormal rates is small, so that even under a wage tax she can realize them all, the wage tax is not, in fact, depriving her of any opportunity she would otherwise have.

In the first set of examples (Examples 2 and 3), we assumed that the taxpayer had limitless opportunities to invest at supernormal returns. Therefore, by reducing her available funds to invest from $1,000 to $600, the government deprived her of the capability of earning supernormal returns on $400 worth of investments. The $400 would have produced a supernormal return of $16 ($400 times 4%), which, if subject to a 40% tax rate, would leave the taxpayer with $9.60 (after taxes). Recall that the difference between the amount available for consumption under a wage tax and a cash-flow consumption tax in the first set of examples was $9.60.

In the second set of examples (Examples 4 and 5), we assumed that the taxpayer only had $500 worth of supernormal investments available. Under a wage tax (Example 4), because she had $600 to invest ($1,000 wages less $400 in taxes), she was able to exploit fully the supernormal investment. By imposing tax when wages are received, the government has not prevented the taxpayer from exploiting her skills to the fullest. In these circumstances, a wage tax (with supernormal returns included in the base) and a cash-flow consumption tax are equivalent. Furthermore, excluding supernormal returns from the tax base of a wage tax would result in undertaxation of the taxpayer (relative to the cash-flow consumption tax).

Returning to the trilemma introduced above, it would appear that while a cash-flow consumption tax and a wage tax are functionally equivalent with regard to the risk-free return and the risk-premium, they are not necessarily equivalent with respect to supernormal returns. When the supernormal investment can only be financed by equity and where the opportunity to earn supernormal returns extends beyond the taxpayer's net wages, a wage tax will limit the taxpayer's ability to exploit fully the available opportunity. She will, therefore, be better off under a cash-flow consumption tax. The reason is that, while a cash-flow consumption tax and a wage tax are functionally equivalent with regard to the return on capital, the supernormal return is not a return on capital but rather is based upon skill, labor, or luck.

To complete the picture, let us now consider how the analysis would apply to a situation in which the available opportunities to invest at supernormal returns are less than the taxpayer's gross wages, but more than her net wages.

Example 6 (Wage Tax). Assume again that the financially savvy taxpayer earns wages of $1,000, her tax rate is 40%, and, while the normal market rate of return is 8%, she can earn 12% on supernormal investments she has identified. Assume further that $700 of supernormal investments are available. Under a wage tax, the taxpayer would invest her entire net wage of $600 in a supernormal investment and would earn $72, of which $24 is supernormal. After paying tax on her supernormal return, she would be left with $662.40,

the same result as in Example 2.

Example 7 (Cash-Flow Consumption Tax). Under a cash-flow consumption tax, the taxpayer in Example 6 would invest $700 in the supernormal investment and the remaining $300 in a normal investment. The supernormal investment would produce a return of $84, while the normal investment would produce a return of $24. The taxpayer would therefore have in her possession $1,108. After paying tax of 40%, she would be entitled to consume $664.80. The difference between the amounts available for consumption under the two tax regimes is $2.40 ($664.80 less $662.40).

We can now explain the difference of $2.40 in Examples 6 and 7 as equal to the net supernormal return on the $100 investment [$4 ($100 times 4% supernormal return) less $1.60 (40% tax)]. The $100 investment represents the additional supernormal investment available to the taxpayer in Example 7 under a cash-flow consumption tax but not available to her in Example 6 under a wage tax.

The difference between the post-tax amounts under the two tax bases can be demonstrated algebraically. Under the wage tax (if the supernormal return is included in the base), the taxpayer's post-tax amount is: $W(1\text{-}t)[1+ N + S(1\text{-}t)]$. Under the cash-flow consumption tax, the taxpayer's post-tax amount is: $[L(1 + N + S) + (W\text{-}L)(1 + N)](1\text{-}t)$, where $W > L > W(1\text{-}t)$.

E. *Supernormal Returns from a Consumption Perspective*

Until now, we have been analyzing supernormal returns under the wage tax from an income perspective. We will now turn to analyzing them from a consumption perspective. As we will see, the consumption perspective will also shed light on the analysis from an income perspective. In order to do so, however, we need to be able to translate from a tax-inclusive base to a tax-exclusive base and vice versa.

If a taxpayer earns $1,000, pays tax of $400, and is left with $600 to invest or consume, the tax paid is 40% of the sum of the taxpayer's investment, consumption, and tax liability. The 40% tax rate is imposed on a tax-inclusive base. We could, however, exclude the tax from the tax base and correspondingly raise the tax rate. In the example, the taxpayer's tax bill ($400) is 67% of her total consumption and investment ($600). In other words, a tax rate of 40% on a tax-*inclusive* base is equal to a tax rate of 67% on a tax-*exclusive* base. The two are mathematically identical. The choice between them is

purely a matter of convenience.[69]

An income tax is normally imposed on a tax-inclusive base.[70] The reason for this is that the known quantity is the taxpayer's total income. What will be left over for consumption or investment will not be known until the amount of tax is computed. It is therefore easier to define the tax base in a tax-inclusive manner and apply the appropriate tax rate, rather than to determine the amount of tax, such that the tax rate, when applied to the difference between the total and the tax, will result in that amount of tax. Thus, it is easier to multiply the tax-inclusive base by 40% than it is to figure out that $400 is the amount which needs to be subtracted from $1,000 so that the difference ($600), when multiplied by the tax rate of 67%, will indeed result in $400.[71]

Where the known quantity is the amount remaining after tax, it is usually more convenient to define the tax base in tax-exclusive terms. Thus, when the tax base is consumption, it is easier to multiply actual consumption by the tax-exclusive rate than it is to determine the amount of tax, which when added to consumption and multiplied by the tax-inclusive rates would equal that amount of tax. For instance, where consumption is $600, it is easier to define $600 as the tax base and multiply it by 67% than it is to determine that $400 is that number which needs to be added to $600 so that the sum, when multiplied by the tax-inclusive rate of 40%, will equal the tax liability of $400.

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[69] The issue of tax-inclusive base versus tax-exclusive base has received some attention recently in connection with the Fair Tax. See S. 1025, 110th Cong. (2007); H.R. 25, 110th Cong. (2007). The Fair Tax is a proposal to repeal all federal taxes and replace them with a single federal consumption tax. The tax rate under the Fair Tax is stated to be 23%. The 23% rate is a tax-inclusive rate. If the Fair Tax is expressed in tax-exclusive terms, the tax rate becomes 30%. Many proponents of the Fair Tax maintain that 23% is the more meaningful figure because the rates under the current federal income tax system are expressed on a tax-inclusive basis. Many opponents of the Fair Tax maintain that 30% is the more accurate figure because sales taxes are generally expressed on a tax-exclusive basis. See Fair Tax, FAQs, http://linderfairtax.house.gov/index.cfm?FuseAction=FAQs.View&FAQ_id=23 (last visited Nov. 4, 2008).

[70] *See* Fair Tax, *supra* note 69.

[71] When income tax rates are imposed on a tax-inclusive base and the known quantity is net income, then the computation described in the text is necessary. Assume that a U.S. person agrees to pay a nonresident alien $500 "net of U.S. taxes" and the withholding rate is 30%. I.R.C. §§ 871(a)(1), 881(a), 1441(a), 1442(a). The recipient's income, for United States tax purposes, is $500 plus the tax withheld. I.R.C. § 1462. We need, therefore, to determine how much tax needs to be withheld so that the amount of tax withheld is equal to 30% of the sum of the amount withheld plus $500. It turns out that the tax is $214, which is 30% of $714.

Representative tax-inclusive rates and their equivalent tax-exclusive rates are given in the following table:

Tax-inclusive base	Tax	Tax-exclusive base	Tax-inclusive rate	Tax-exclusive rate
$1,000	$100	$900	10%	11%
$1,000	$200	$800	20%	25%
$1,000	$300	$700	30%	43%
$1,000	$400	$600	40%	67%
$1,000	$500	$500	50%	100%

As can be seen in the table, the higher the rate of tax, the greater the difference between the tax-inclusive base and the tax-exclusive base, and consequently, the greater the difference between the tax-inclusive rate and the tax-exclusive rate.

From a consumption perspective, a tax on wages is a present value substitute for a tax on future consumption. Where wages are invested in risk-free investments, the wage tax is equal to the present value of future consumption times the tax-exclusive rate. If, for example, the taxpayer earns $1,000, pays a wage tax of $400, and invests the remaining $600 at a risk-free return of 5%, she will be able to consume $630 at the end of one year. From a consumption perspective she should, therefore, pay tax of $420 (67% of $630). Her payment of $400 when the wages were received is, indeed, equal to the present value of $420.[72]

Where wages are invested in risky investments, the wage tax still represents the tax-exclusive rate times the present value of the projected range of consumption. If, for example, the taxpayer earns $1,000, pays a wage tax of 40%, and has an even chance of earning 1% or 15% on an investment that is not supernormal, her projected consumption is $606 or $690, with an even chance of each. In this example, the present value, at the time the wages are received, of a future even chance to consume $606 or $690 is $600, as that is the present market cost of the expected range of consumption possibilities. The taxpayer will satisfy her tax obligation by paying $400, or 67% of the present value of future consumption. Again, a wage tax is the present value equivalent of a tax on consumption.

Supernormal returns are, as to be expected, more complicated to analyze. Assume that a taxpayer's wages are $1,000, the normal rate of return is 8% and the taxpayer is able to achieve a 12% return. The taxpayer will pay $400 in taxes at the time her original wages were earned and will invest the remaining $600. Her investment will produce income of $72, of which $24 is supernormal. Her tax liability on the supernormal return will be $9.60, and she will be

[72] 420/1.05 = 400.

able to consume $662.40. As this amount is tax-exclusive, we should expect, if indeed a wage tax is equivalent to a consumption tax, that she should pay tax at the tax-exclusive rate of 67% or $441.60 (67% of $662.40).

In our example, the tax on the supernormal return was paid at the same time that the consumption occurred. We can say, therefore, that at that time the taxpayer satisfied $9.60 of her $441.60 liability. The remaining $432 was prepaid at the time the original wages were earned. The present value of $432, at an 8% market rate of return, is exactly $400.

This analysis is, however, questionable. It might be asked why the present value of $432 was computed according to an 8% market rate of return. The taxpayer, after all, is able to achieve a higher rate of return. From her perspective, $432 at the end of the period is worth less than $400 at the beginning (or, equivalently, $400 at the beginning is worth more than $432 at the end). If we compute the present value of her consumption according to a higher rate of return, we will discover that she overpaid or, in other words, that a wage tax overtaxes deferred consumption. Which is the correct rate of return by which to compute the present value of future consumption: the market rate of return or the higher rate of return the taxpayer is able to achieve?

From the government's point of view, the correct rate of return would appear to be the market rate.[73] It can invest the $400 collected at the time the original wages were earned at the market rate of return. If the $400 is added to the $9.60 collected later, the government will have 67% of the taxpayer's consumption. From the taxpayer's point of view, taking the $400 prevented her from earning not only the market rate of return but also the supernormal return. Recalling that the supernormal return is actually income derived from services, we can say that by pre-imposing the tax and preventing the taxpayer from investing her entire earnings, the government decreased the worth of those services the taxpayer was able to provide. Her ability to earn an above-market rate of return is worth less when the funds available for investment are diminished.

In effect, the supernormal return on the tax is simply lost. It was denied the taxpayer without being taken by the government. The taxpayer, in other

[73] An interesting issue is the macroeconomic effect of imposing a wage tax and denying the taxpayer the opportunity to earn supernormal returns. If the overall average return on investment is assumed to be unaffected by the taxpayer's involvement in the market, it would seem that by picking the best investments, the taxpayer is lowering the return that other investors will earn: if one person is above average, the rest of the investing public, as a whole, must be below average. If this assumption is true, the government may not be losing anything by imposing a wage tax. While it will collect less tax from the particular taxpayer concerned, it will be compensated by collecting more taxes from other investors. On the other hand, it is possible that investing is not a zero-sum game. By identifying and purchasing good investments, the taxpayer's actions may encourage the offering of similar investments and raise the average return, so that the government ends up a net loser by imposing a wage tax and preventing her from exploiting her skills to the fullest.

words, is worse off without the government benefiting.[74] This discrepancy is a direct reflection of the discrepancy we noted earlier, when analyzing the wage tax from an income perspective. We saw that, where the opportunities to earn a supernormal return are unlimited—or, more precisely, where the wage tax prevents the taxpayer from exploiting at least some of the supernormal investment opportunities available—the wage tax and the cash-flow consumption tax are not identical.

We also noticed that, where the opportunity to earn supernormal returns is limited, so that even after having paid a wage tax, the taxpayer can still avail herself of all the opportunities available, the cash-flow consumption tax and the wage tax are, from an income perspective, identical. Does this identity hold true from a consumption perspective as well? The answer is "yes it does." Let us return to an example we analyzed earlier (Example 4), where income is $1,000, the (tax-inclusive) tax rate is 40%, the market rate of return is 8%, and the taxpayer has identified a $500 investment that will produce a supernormal return of 4% (*i.e.*, a total return of 12%). Under either a cash-flow consumption tax or a wage tax, she will be able to consume $660 after one year.[75] The $440 paid under a cash-flow consumption tax is clearly 40% (on a tax-inclusive base) or 67% (on a tax-exclusive base) of consumption.

Under a wage tax regime, the taxpayer will have paid $400 at the time the original wages were earned and an additional $8 at the time of the supernormal return (*i.e.*, after one year). As she consumed $660, we would expect the total amount of taxes paid to equal $440 on a present value basis.

The tax of $8 was paid at the same time as the consumption occurred after one year, so no adjustment is necessary to reflect the time value of money. The tax remaining to be paid is $432. Should the $400 actually paid at the time the original wages were earned and the $432 ($440 less $8) tax remaining to be paid, be compared based on the market rate of return or the supernormal rate of return? As opposed to our previous example, here the answer is clear. In accordance with the assumptions of our present example, the taxpayer could not have earned more than the market rate of return on the $400; the opportunity to earn an above-market rate of return was already exhausted by the $500 investment. The rate of return by which present and future values

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[74] Situations in which taxpayers' losses are not compensated by government gain are often described as a deadweight loss to the economy. The situation we are discussing—whether or not it can be described as a deadweight loss appears to us merely semantic—is, however, qualitatively different from normal instances of deadweight loss. Deadweight loss is usually ascribed to the substitution effect of a tax when the tax base is a socially beneficial activity. Taxpayers will tend to modify their behavior to try and reduce their tax liability. The activity not engaged in produces no tax revenue, but society nevertheless is worse off.

The situation we are discussing is different. It is not the result of the substitution effect. The taxpayer is not modifying her behavior to try to avoid tax. The tax simply prevented the taxpayer from maximizing her potential.

[75] Under a cash-flow consumption tax, she can consume: $500(1.12)(1 – 0.4) plus $500(1.08)(1 – 0.4). Under a wage tax, she can consume: $500(1 + 0.08 + (0.04)(1 – 0.4)) plus $100(1.08). *See supra* Part III.D.

are to be compared is the market rate. Using the market rate of return, a $400 tax at the time the original wages were earned is equal to a $432 tax at the time of consumption.

F. *Supernormal Returns over Time*

Where opportunities for supernormal investment are unlimited, the effect of reducing the taxpayer's ability to exploit them by taxing wages at the time they are received can be quite dramatic.

Example 8 (Cash-Flow Consumption Tax). Assume that the taxpayer receives wages of $1,000, that the market return is 8% a year, and that she is able to earn 12% a year. Assume further that her tax rate is 40% and she is saving for a period of 30 years. Under a cash-flow consumption tax regime she would have $29,960 at the end of 30 years.[76] Paying tax at a 40% (tax-inclusive) rate would leave her with $17,976.

Example 9 (Wage Tax). Under a wage tax regime, the taxpayer would pay $400 in taxes when the $1,000 of wages were received and would have $600 left to invest. Her net return per year would be 10.4% (12% minus a 40% tax on the 4% supernormal return). After 30 years, she would have only $11,674 to consume.[77] The tax, by limiting her opportunity to exploit her talent, would deprive her of $6,302 or fully 35% of the funds that would have been available under a cash-flow consumption tax.

The difference between the post-tax amounts under the two tax bases in Examples 8 and 9 can be demonstrated algebraically. Under a wage tax (with supernormal returns included in the tax base), the terminal value of the investment after tax is: $W(1\text{-}t)[1+ N + S(1\text{-}t)]^p$, where p is the number of years of compound growth. Under a cash-flow consumption tax, the terminal value after tax is: $W(1 + N + S)^p(1\text{-}t)$. The difference between the formulas is the $(1\text{-}t)$ that is applicable to the supernormal component in the wage tax.

The taxpayer, however, is not the only one worse off under a wage tax than under a cash-flow consumption tax. The supernormal return, as a reward for the exploitation of the taxpayer's skill, would have been taxed. By taxing the taxpayer's wages and not allowing her to earn supernormal returns, the government not only limits the opportunities available to the taxpayer to exploit her talents, but also denies itself the ability to tax the taxpayer's supernormal returns.[78]

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[76] $\$1{,}000(1.12)^{30}$

[77] $\$600(1.104)^{30}$

[78] The government's terminal value of *tax collected* under a wage tax is:

$$Wt(1 + N)^p + \sum_{x=1}^{p} W(1 - t)\,St\,[1 + N + S(1 - t)]^{(x-1)}\,(1 + N)^{(p-x)}$$

where N is the government's investment rate. The government's terminal value of *tax collected* under a cash-flow consumption tax is: $Wt(1 + N + S)^p$.

IV. Conclusion

Much has been written in recent years about the taxation of income from capital in an accrual income tax system, and a cash-flow consumption tax system and a wage tax system. In determining what components of capital income are taxed in each of the systems, two views are consistently utilized: the partnership view (credited to Dr. Cary Brown) and the gross-up view (credited to Drs. Domar and Musgrave). In applying the two views to each of the two components of capital income in an accrual income tax system, a cash-flow consumption tax system and a wage tax system, two general observations have been made in the literature. First, the risk-free return is taxed in an accrual income tax system but not in a cash-flow consumption tax system or a wage tax system. Second, the risk premium is not taxed in an accrual income tax system, a cash-flow consumption tax system or a wage tax system.

With regard to supernormal returns, we believe it should be viewed as a return on the taxpayer's skill or labor, or in some cases, simply a windfall. It should not be viewed as an element of the return on capital. As a consequence, a wage tax and a cash-flow consumption tax, although functionally equivalent as far as the return to capital is concerned, are not necessarily equivalent with respect to supernormal returns.

If the supernormal return is viewed as a return to skill or a windfall, the wage tax is not a viable alternative to a cash-flow consumption tax. First, it is practically impossible to separate supernormal returns from the risk-free return and the risk premium. If supernormal returns are therefore, for lack of an alternative, removed from the wage tax base, a wage tax will end up undertaxing consumption. The truth of this contention is particularly obvious when the opportunities for supernormal investments are limited, so that, by imposing a wage tax, the government does not prevent the taxpayer from capturing all available supernormal returns. The taxpayer will end up with more funds available for consumption under a wage tax than she would under a cash-flow consumption tax.

Where the opportunity to earn supernormal returns is unlimited, it is not intuitively apparent why the supernormal returns are undertaxed under a wage tax regime as compared to a cash-flow consumption tax regime. After all, the post-tax situation of the taxpayer would be identical under a wage tax, as compared with a cash-flow consumption tax. Nevertheless, in these circumstances, the government's take under a wage tax is less. As the government can presumably only earn the market return on its investments, the present value of its collection under a wage tax is less than it would have been under a cash-flow consumption tax. Specifically, it will lose the tax it could have collected on the supernormal return earned by the taxpayer.

If, as they should be from a theoretical perspective, supernormal returns are included in the tax base of the wage tax, a wage tax would impose an uncompensated cost on society. The taxpayer would be denied the possibility of further exploiting her talents, to the detriment of both the taxpayer (who

is unable to collect the net supernormal return) and the government (which is unable to collect the tax on the supernormal return). Therefore, if, for reasons of policy, consumption is viewed as a preferable tax base to income, it would appear that the tax should take the form of a cash-flow consumption tax. A wage tax is not a satisfactory substitute.[79]

[79] Others have argued that a wage tax is not a satisfactory substitute for a consumption tax for reasons unrelated to supernormal returns. *See, e.g.*, Edward J. McCaffery, *A New Understanding of Tax*, 103 MICH. L. REV. 807, 813–15 (2005) (Progressive tax rates destroy the equivalence between prepaid (that is, wage) and postpaid (that is, cash-flow) consumption taxes).